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ABSTRACT

This monograph was designed to disseminate the results of recent scientific research in rehabilitation counseling and related areas. The 21 abstracts reflect the research currently underway in universities, rehabilitation facilities, and rehabilitation research institutes throughout the country. Sample topics include: (1) "A Descriptive Study of Supervisory Practices as Perceived by Counselors in State Vocational Rehabilitation Agencies," (2) "The Effects of Oxygen Inhalation on Motor Impersistence in Brain-Damaged Individuals: A Double Blind Study," (3) "A Guttman Facet Theory Analysis of Teacher Attitudes Toward the Mentally Retarded in Columbia, British Honduras, and the United States," (4) "Repeated Measures and the Evaluation of Change in the Individual Client During Counseling," and (5) "Environment As a Network of Judgments Regarding Staff Roles." Research projects which have won awards are noted in the document. (GEB)

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ABSTRACTS OF RESEARCH IN REHABILITATION

The Top Twenty-one Research Selections by the 1970-1971 Research Awards Committee of American Rehabilitation Counseling Association

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PREFACE

The research abstracts in this monograph were provided by 17 of the 21 authors. The editors sincerely appreciate their willingness to provide these summaries; however, the editors accept full responsibility for the final product.

The monograph has the same objectives and follows the same format as the monograph for the top 20 research selections in 1969. These objectives remain the same as those stated in the last edition of an ARCA Research Awards Monograph. The monograph was prepared and published to disseminate the results of recent scientific research in rehabilitation counseling and related areas. The 21 abstracts in this volume reflect equality and variety of research currently underway in universities, rehabilitation facilities, and rehabilitation research institutes throughout the country. The winning award and those with honorable mentions are noted in the Table of Contents.

The American Rehabilitation Counseling Association, through the Research Awards Committee, has demonstrated a professional commitment to the continued growth of knowledge in rehabilitation counseling by annually citing the outstanding research for the previous year. ARCA recognizes that scientific research is an essential ingredient to the continued growth of the people of rehabilitation counseling. The presentation of annual research awards underscores the association's view that scientific research is an integral part of a professional organization's activities.

The resources and technical personnel of the Arkansas Rehabilitation Research and Training Center at the University of Arkansas and the Arkansas Division of Vocational Rehabilitation made this publication possible.

JDB
August, 1971

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[1]Winning Award

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The following abstract also appeared in last year's Award Monograph.

A DESCRIPTIVE STUDY OF SUPERVISORY PRACTICES AS PERCEIVED BY COUNSELORS IN STATE VOCATIONAL REHABILITATION AGENCIES

Smits, S. J. and Aiken, W. J. Bloomington, Indiana: Indiana University, 1969.

Background

While time, money, energy and attention have been focused on the rehabilitation counselor, relatively little concern has been shown regarding his supervisor. Yet it is the supervisor who motivates and directs the counselor's activity by: (a) contributing to the educational and professional growth of his counselors, (b) contributing to staff morale, (c) encouraging counselor productivity, (d) reviewing counselor-client activities, (e) stimulating and organizing agency and community resources, and by (f) interpreting agency standards and policy to the counselor.

In short, if the counselor is the direct link between the agency and the client, the supervisor is the direct link between the counselor and the agency. This project was a descriptive, hypothesis-generating study which sought to answer two questions: (1) How do counselors in State Vocational Rehabilitation Agencies describe the behavior of their supervisors in terms of leadership characteristics, interpersonal relationships, and areas of competency? (2) Is there a significant relationship between counselor descriptions of supervisory behavior and counselor job satisfaction?

Related Research

Industrial research provided several important observations and hypotheses: (1) Leader behavior appears to be a function of the interpersonal values of the leader, (2) Higher levels of consideration seem to relate to a more pleasant work environment, but seem unrelated to production, (3) Large organizations seem to require uniform behavior in order to achieve efficiency, thereby reducing worker autonomy with a subsequent reduction of his emotional involvement in his work, (4) Job satisfaction and dissatisfaction are multidimensional measures composed of both intrinsic and extrinsic factors, (5) Intrinsic factors are stronger determinants of satisfaction, or dissatisfaction, among white-collar workers, and (6) There is some evidence and conjecture to suggest a relationship between attitudes toward supervisory behavior and job satisfaction. However, it is difficult to apply the industrial results because rehabilitation differs from industry in at least two essential

ways: Rehabilitation, as defined in this study is a governmental rather than free enterprise activity; and production and quality criteria are more clearly defined in industry.

Methodology

Five research instruments were mailed to a random sample of counselors in 31 cooperating agencies. Completed instruments were returned by 230 counselors (67%). Measures of leader behavior obtained from the *Leader Behavior Description Questionnaire-Form XII* (LBDQ) and the *Relationship Inventory* were used as predictors and related to scores on the *Job Satisfaction Inventory* (JSI). The effects of sex, age, professional preparation, agency size, agency location, and several time-on-the-job factors were also assessed.

Results

Regarding the description of supervisory behavior, the results from the LBDQ indicate that counselors see their supervisors' leadership behavior as more characteristic of "tolerance of freedom" and "consideration" than of "initiation of structure" and "production of Emphasis." In terms of interpersonal relationships, supervisors are seen as responding to the counselors with a comparatively high "level of regard" which, however, is not entirely unconditional. The area in which supervisors were seen as inadequate by the largest proportion of counselors (35%) on the *Inservice Training Needs of Supervisors Questionnaire* was the "Ability to handle interpersonal relationships in administrative settings, directing, motivating and stimulating staff performance." Sixty-two of the 81 correlation coefficients showing the relationship between counselor perceptions of supervisory behavior and counselor job satisfaction were significantly different from zero at or beyond the .001 level of confidence. "Production emphasis" as a supervisory behavior was not significantly related to any of the eight dimensions of counselor job satisfaction.

Research Implications

The enormity of the budget and the social and humanitarian importance of the rehabilitation effort would seem to justify research efforts aimed at identifying and minimizing the constraints and maximizing the incentives in State Rehabilitation Agencies. Productivity is important in rehabilitation settings as well as in industry. Yet the process of producing is quite different in the two settings. Rehabilitation outcomes would seem to be more dependent upon the interpersonal interaction of the counselor and his client, whereas the more impersonal process in industry is often less dependent on interpersonal behavior than on eye-hand coordination. First, and foremost, research is needed to determine the relationships among measures of supervisory behavior, counselor job satisfaction, and case service outcomes. Secondly, research is needed to

determine the counselor turnover. Research could also contribute to the isolation of those interpersonal values most likely to be associated with appropriate leader behavior, and subsequently to the identification of persons for supervisory positions. The whole area of supervision in state rehabilitation agencies needs a longitudinal, in-depth study designed to pinpoint an appropriate set of supervisory responsibilities and to devise adequate tools and techniques for its implementation.

LEADERSHIP BEHAVIOR AND JOB SATISFACTION IN STATE REHABILITATION AGENCIES

Aiken, W. J., Smits, S. J., and Lollar, D. J. Washington, D. C.: American Psychological Association Experimental Publication System, 1970, 5, No. 181A.

This investigation was derived from the premise that effectiveness in rehabilitation agencies would be increased by a greater emphasis on the quality of the supervision provided for counselors. The purpose of the present study was to determine what aspects of supervisor behavior and counselor job satisfaction were perceived by counselors as being operative in the State Rehabilitation Agencies.

A ten percent random proportional sample of 360 counselors was drawn from personnel lists submitted by 31 participating State Rehabilitation Agencies. To obtain a measure of supervisor behavior, the subjects were administered four subscales of the Leader Behavior Description Questionnaire (Initiation of Structure, Tolerance of Freedom, Consideration, Production Emphasis) along with the Barrett-Lennard Relationship Inventory. The latter instrument is designed to measure empathic understanding, level of regard, unconditionality of regard, and congruence or genuineness. In addition, subjects completed Muthard and Miller's Job Satisfaction Inventory, which measures counselor satisfaction with eight aspects of the job. Complete scores were obtained for 230 of the original 360 counselors.

Using the 16 scores derived from the three above instruments, a principal-components factor analysis was performed, followed by rotation to a Varimax solution. Of the eight resulting factors, six were interpreted. The largest amount of common variance (52.2%) was contributed by the first factor, tentatively labeled "Interpersonal Aspects of the Work Environment." High loadings on the factor included scores for Unconditionality of Regard, Congruence, Level of Regard, Consideration.

The findings are interpreted as suggesting the need to place the supervisor's role in a new perspective, giving more emphasis to the supervisor-counselor relationship and the educational-consultative functions of the supervisor.

THE RELATIONSHIP BETWEEN IMPERSISTENCE, INTELLECTUAL FUNCTION AND OUTCOME OF REHABILITATION IN PATIENTS WITH LEFT HEMIPLEGIA.

Ben-Yishay, Y., Diller, L., Gerstman, L., and Haas, A.
Neurology, 1968, 18, 852-861.

It nas been demonstrated by Joynt and Benton that motor impersistence is characteristic of many patients with brain damage but occurs with only rare frequency in normal children and adults. Because of the important clinical and theoretical implications for neuropsychology a number of issues were explored: (1) Do the various tests for impersistence tap the same underlying disabilities, i.e., is impersistence a syndrome? (2) Is impersistence a reflection of intellectual or sensory motor dysfunction or both, or does it exist as an independent entity? (3) What is the relationship between impersistence and attainment of functional competence in rehabilitation parameters such as ambulation, self-care and length of stay in the rehabilitation center?

Subjects

The *S*s were 24 right-handed patients rendered left hemiplegic following CVA. Mean age was 61.5 years, mean educational level was 12.1 years of schooling. All were from middle-class socioeconomic backgrounds. Mean time elapsed between onset of CVA and entry to the study was 4.7 months.

Method

Patients were seen for a total of four 1-hour sessions, in each of which was administered a portion of the total test battery. Patients were only tested if their charts indicated no change in medical status and no unusual reactions to medications.

Testing Procedure

Motor impersistence was determined by administering the first eight tests of the impersistence battery: (1) keeping eyes closed; (2) protruding tongue blindfolded; (3) protruding tongue with eyes open; (4) fixating gaze in lateral visual fields; (5) keeping mouth open; (6) fixating examiner's nose during confrontation testing of lateral visual fields; (7) head turning during sensory testing; (8) saying "ah." Psychomotor performance was tested by the peg-placing portion of the Purdue Peg Board; sensory discrimination was tested by 2-point discrimination in the vertical midline of each thumb; perceptual organization was tested by WAIS picture arrangement, block design and object assembly;

auditory attention was measured by the WAIS digit span test. and visual attention by a cancellation test, and concentration by WAIS Arithmetic tests; verbal conception skills were evaluated by the WAIS Similarities test. Duration of stay in the rehabilitation program was measured in months; ambulation was rated in a 6-point and Self-care on a 5-point scale.

Results

The findings suggested (1) that the impersistence tasks measure a common underlying deficit; this deficit is tapped in an increasing, step-wise degree of sensitivity; and that the order of predictability is in one direction only, i.e., failure on task two is a strong predictor of failure on all the other tasks, but failure on task 4 may not necessarily imply a failure on other tasks. The order of impersistence-task-difficulty is: 2,7,3,5,1,6,8,4. (2) With respect to the relationship between impersistence and intelligence tests (i.e., the WAIS subtests) it was found that for each subtest the magnitude of scores is in an ascending order in accordance with the magnitude of motor impersistence, so that patients with severe, moderate and normal impersistence, achieved the lowest, middle and highest scores respectively. For all groups, scores on the verbal scales exceeded scores on the performance scales. (3) Magnitude of direction of the 2-point discrimination threshold of the left (impaired) thumb from the right (normal) thumb also followed degrees of impersistence, except in the case of *S*s in whom left tactile sensitivity was completely impaired. (4) Purdue Peg Board performance followed essentially the same pattern. (5) More severely impersistent *S*s tended to stay longer on the rehabilitation program and achieve lesser degrees of functional competence in ambulation and self-care.

It was concluded that the impersistence battery is an excellent clinical tool for quick estimates of degree of organicity and as a prognosticator of rehabilitation. In intact areas of function, such as verbal tasks and sensory discrimination on the intact side, impersistence may be a measure of fluctuation in attention rather than of deficit in skill per se; in areas of "performance," however, (i.e., sensorimotor and perceptual tasks) it is a measure of degree of deficit in skill as well as fluctuations of attention.

PREDICTION OF REHABILITATION OUTCOMES FROM PSYCHOMETRIC PARAMETERS IN LEFT HEMIPLEGICS

Ben-Yishay, Y., Gerstman, L., Diller, L., and Haas, A. Journal of Consulting and Clinical Psychology, 1970, 34, 436-441.

Attempts to predict the success or failure of brain injured persons in rehabilitation programs have traditionally been based on the use of one or two critical variables which separated a success group from a failure group. But from a clinical standpoint the single parameter method of prognostication is of limited value, for one variable cannot alone account for sufficient of the variance to ensure reliable prediction. With the advent of computer technology it is possible to take account of more complex and subtle interactions of many different factors and enhance prediction accuracy through multiple correlation formulae. To date it has been typically physiological measures, e.g., age, systolic blood pressure, pain threshold, etc., which have been employed as predictor variables; it has been repeatedly suggested, however, that the addition of other predictors, e.g., visual perceptual and psychological test data, might increase prediction accuracy. The present study employed a total of 42 predictor variables in five classes: (1) clinical-demographic; (2) sensory-motor; (3) intelligence tests (WAIS); (4) special WAIS cuing procedures; (5) Bender-Gestalt test.

Subjects

54 *S*s, approximately half males and half females provides the retrospective data base. All had been rendered left hemiplegic or left hemiparetic following CVA. Mean age was 59.5 years, mean education 12.3 years, mean time from onset of stroke to testing was 7.1 months. All *S*s were from middle or upper-middle socioeconomic backgrounds.

Rehabilitation Criteria

On discharge from active rehabilitation, each *S*'s medical chart was examined to determine the length of time on the program, and the status of self-care and ambulation skills. Stay was recorded to the nearest month; ambulation and self-care were rated on reliable scales developed during pilot research.

Procedure

About one week after admission, each *S* underwent an intensive psychometric testing schedule comprising a wide range of standard and specially devised psychometric tasks. At the same time the *S*s chart was consulted to obtain several items of clinical-demographic information. The total of 42 variables so obtained were encoded on punch cards. At patients' discharge, three

additional variables, the rehabilitation criteria, were added to the punch cards. A stepwise multiple linear regression program was employed repeatedly to determine the predictive efficiency of various combinations of variables.

Results

For all three rehabilitation criteria, clinical demographic data alone yielded an average multiple R of .45; the addition of sensory motor variables brought the R up to .59; the standard WAIS scale scores increased the R again to .71; and the special cuing scales to .74; the addition, finally, of the Bender-Gestalt variables yielded an essentially uniform R of .89 for all three rehabilitation criteria. This is a level of predictive efficiency considerable higher than any previously reported for rehabilitation of hemiplegics. The quality of prediction was high even at the extremes of each scale. Some of the 42 variables were found to be redundant with respect to increasing the accounted-for variance. 15 redundant variables were removed from the original 42; the remaining 27 variables were run once again, resulting in a slight drop in the multiple R (to .84), but giving an improvement of 45 minutes in testing time.

Cross Validation

15 new patients were selected who met the criteria established for the orginal *S*s. Each of those new patients was given the compact battery one week after admission, and the regression equation computed to predict ambulation, self-care and stay. To obtain an average estimate of predictive quality, Pearson product moment correlations of predicted and obtained outcome were computed for each criterion. Despite the small number of *S*s, the correlations were uniformly significant.

The predictive study has several clinical and theoretical implications. (1) It demonstrates the existence of lawful relationships between psychological test patterns, organic factors, and rehabilitation outcomes; (2) it is a major step towards the development of explicit behavioral concepts which can be utilized as independent or dependent variables in other investigations on brain-injured persons; (3) it helps move rehabilitation away from the empirical base, onto a rational one; (4) it provides a way of replacing subjective estimates with "engineering" equations as the basis for clinical prognostication; (5) it constitutes a first step towards making explicit the clinician's judgment as to whether a patient has reached his maximum benefit point in a rehabilitation program; (6) it raises the possibility of establishing a method for comparative patient/program evaluations. If predictions made from regression equations fail to hold up in a given situation, then either the patient's representativeness and/or the program efficiency may be questioned.

THE EFFECTS OF OXYGEN INHALATION ON MOTOR IMPERSISTENCE IN BRAIN-DAMAGED INDIVIDUALS: A DOUBLE BLIND STUDY

Ben-Hishay, Y., Haas, A., and Diller, L. Neurology, 1967, 17, 1003-1010.

Motor impersistence denotes the inability of some brain-damaged persons to sustain voluntary psychomotor acts on verbal command. Utilizing norms obtained from a control group, Joynt and Benton have found that pathological impersistence occurs only in brain-damaged persons. Haas and Rusk have found that, left hemiplegics may suffer from low-grade hypoxemia which may underlie some of their physical and mental dysfunctions. Ben-Yishay and Haas found that oxygen inhalation selectivity improved mental function in three areas: 2-point discrimination on the affected thumb, Purdue Peg Board (peg placing) and the WAIS Block Design Test. These tasks involve the maintenance of sensory perceptual and sensory motor sets. To cross validate the hypothesis, a double-blind study was conducted using the impersistence tasks as the experimental variables.

Subjects and Method

24 left hemiplegics (mean age = 61.9 years, mean education = 12.3 years, time from onset of CVA to testing = 3.2 months) were randomly divided into two groups. In the first group the *S*s were presented with the impersistence tests while inhaling six-liters per minute compressed, regular air; ten days later they were administered the same tests while inhaling six-liters per minute flow of pure 97% oxygen and 3% carbon dioxide. The second group underwent the same procedure, except in reversed order, i.e., oxygen during first setting and air during the second. The air and 0_2 were administered through a double nasal catheter under normal atmospheric conditions. Each *S* served as his own control. The experiment was conducted in a double blind fashion. Nine tests of psychomotor performance were given, 8 of which derived from the impersistence battery. These were (1) keeping eyes closed; (2) protruding tongue blindfolded; (3) protruding tongue with eyes open; (4) fixating of gaze in lateral visual fields; (5) keeping mouth open; (6) fixating of *E*'s nose during confrontation testing of lateral visual fields; (7) head turning during sensory testing; (8) saying "ah" In addition (9) a visual cancellation test was also administered.

Data from both experimental conditions were pooled to permit analysis of comparison between oxygen versus air inhalation, versus the normative data on the impersistence tests.

Results

Scores under oxygen inhalation were predominantly higher than scores obtained under air inhalation, as on tasks 4, 6, 8 and 9. These were the most difficult tasks of the batteries, since only a small percentage of patients could perform them within the normal limits. On all other tasks *S*s performed within normal limits under both oxygen or air. Restricting further analysis to these four tasks alone, the *S*s were classified as "normally," "moderately" and "severely" impersistent (after Joynt and Benton) and the data were analyzed for significance of change in scores due to oxygen. Chi-square tests revealed significant improvement on this measure under conditions of oxygen inhalation. Expressed in percentages, oxygen affected 95% of *S*s when relative improvement was considered, and 75% of *S*s shifted from pathological to normal levels of performance.

It was concluded that inhalation of oxygen while performing tasks will reduce motor impersistence in left hemiplegics. While a number of alternative explanations of the phenomenon of motor impersistence have been prepared, the authors tended to concur with Joynt and Benton that it is best understood as an example index of generalized mental dysfunction and of scillation in level of function rather than being a circumscribed deficit. The data suggest that left hemiplegics have a deficiency in attention span in performing tasks which involve tactile or visual motor systems. This defect can be partly ameliorated by the administration of enriched oxygenation. Oxygen inhalation may thus be a useful experimental tool to examine populations with selective mental impairments. It is also pointed out that many of the physical and psychological dysfunctions associated with hemiplegia bear a striking resemblance to the signs noted in normal persons under high-altitude induced hypoxia. Thus, the present study suggests a new theoretical analog, and has wide theoretical implications.

RELATIONSHIP OF SELECTED PSYCHOSOCIAL VARIABLES TO PROGNOSTIC JUDGMENTS

Cowden J. E. and Pacht, A. R. Journal of Consulting and Clinical Psychology, 1969, 33(27), 254-256.

This study examined the accuracy and consistency with which clinicians utilized nine selected cue variables (institutional adjustment, hostility, home environment, immaturity, personality disturbance, guilt, social delinquent features, dependency, and anxiety) in making prognostic judgments relating to postrelease adjustment of delinquent boys.

Methodology

The methodology involved three experienced psychologists and one experienced psychiatrist, all staff members from the Wisconsin School for Boys, Wales, as raters. Ratings were on a seven-point scale for the "cue variables," the "global prognostic," and the postrelease adjustment ratings. Postrelease adjustment was determined for a period of up to one year following release from the institution. The sample size of postrelease delinquent boys was 152. No boy was rated by more than one rater and all raters rated approximately the same number.

To assess the predictive value of each cue variable, each rater's cue ratings were correlated with the global prognostic ratings of postrelease adjustment and ratings of actual postrelease adjustment of Ss made independently by other raters.

"These procedures permitted the following comparisons to be made: First, the consistency with which clinicians utilized the cue variables in making prognostic judgments was determined by assessing the degree of relationship between ratings of each cue variable and the global prognostic ratings for each clinician in turn. Second, the relative accuracy with which clinicians as a group used each of the cue variables as predictors of postrelease adjustment was determined by an assessment of the relationship between the cue variables, global prognostic ratings, and ratings of actual postrelease adjustment for all clinicians combined."

Results

The results indicated the following rank order of the consistency of ratings and overall magnitude of the correlation coefficients for the combined global prognostic ratings of postrelease adjustment, then the ratings of actual

postrelease adjustment, followed by independent ratings of two psychologists as the interrater reliabilities based on 35 boys: Institutional adjustment .65, .39, .85; hostility -.36, -.15, .78; home environment .28, .17, .71; immaturity -.24, -.16, .83; personality disturbance -.32, -.11, .73; guilt .29, .18, .66; social delinquent features -.24, -.14, .76; dependency .16, -.15, .52; and anxiety -.10, .02, .56. The interrater reliability of the global prognosis was .79.

The magnitude of the correlations is larger for the global prognosis than the actual postrelease adjustment which suggests that clinicians tended to give the cue variables more "weignt" as predictors than was warranted. The relative weightings given to each of the cue variables seemed realistic in light of the phi coefficient or .74 between the relative rankings of the magnitude of correlations between cue variables and global prognosis and between cue variables and actual postrelease adjustment ratings. Clinicians appeared to be moderately accurate in predicting the postrelease adjustment as well as the degree to which they utilized various cue variables in making such predictions.

Discussion

The results of this study suggest that the degree of consistency of ratings depended heavily upon the nature and amount of ambiguity of the concepts being rated, i.e. the most consistent variables were institutional adjustment, hostility, and home environment, while the least consistent were dependency and anxiety.

Two recommendations arose from this study: First, clinicians should be cautious in assuming a significant consensus as to the prognostic significance of many concepts frequently found in clinical reports. Second, more communication among clinicians should be encouraged with the goal of achieving greater mutual understanding and more consistent usage of certain key concepts, particularly those describing intrapsychic processes.

A GUTTMAN FACET ANALYSIS OF THE RACIAL ATTITUDES OF REHABILITATION COUNSELOR TRAINEES

Dell Orto, A. E. F. Lansing, Michigan: Michigan State University, 1970.

The significance of racial attitudes for the counselor has been expressed by both educators and practitioners. This research was an outgrowth of this concern as well as an attempt to investigate dimensions and components of racial attitudes from the Guttman facet theory approach.

Methodology

A total of 70 rehabilitation counselor training program coordinators were contacted to see whether they were willing to participate in the study. Of these 59 agreed, 8 did not respond, and 3 did not agree.

Those who agreed to participate were mailed the general attitude behavior scale (ABS: BW/WN-G) developed by Hamersma and Jordan (1969), which was a facetized scale based on the theory of Guttman (1966).

For this study there were two versions of the scale: one for Blacks, ABS: B/W-G, and one for Whites, ABS: W/N-G. These were identical forms of the scale except for the term "Black," which was used in the ABS: B/W-G, and the term "Negro," which was used in the ABS: W/N-G. This procedure was followed in order to use a term which designated race in a manner that was acceptable to the respective race.

Analysis

The following analytical procedures were performed on the data: correlational (Pearson r), multivariate analysis of variance, and a simplex approximation test.

Results

Results of the hypotheses tested by correlational techniques were as follows:

1. Amount of education did not show a strong relationship to favorable attitudes toward members of the opposite race.
1. Age was not related to attitudes for Whites, but it was for Blacks at certain levels of the ABS: B/W-G.
3. Efficacy, which tested man's sense of control over his environment, was related to positive attitudes for Whites at two levels of the ABS: W/N-G, while no relationship for Blacks between efficacy and attitudes was found.

4. Enjoyment of contact was the most significant predictor of favorable attitudes for Whites.
5. Reported prejudice yielded significant results, while urbanity did not.

The multivariate analysis of certain hypotheses had the following results:

1. There was no significant difference on the attitudinal score based on religious or political affilitation.
2. A significant difference was found for race, geographic location, and sex.

The limitations of this study and recommendations for further research were also presented.

COGNITIVE STRUCTURES RELATED TO VERBAL DEFICIENCIES[1]

Furth, H. G. and Youniss, J. Final Report-RD-1484-S. Center for Research in Thinking and Language, Washington, D.C.: Catholic University, 1969.

Summary of Results and Discussion

Our research has been focused on intellectual development in deaf and hearing children and adolescents. Observations from six broad areas are outlined below:

Logical Symbols

Deaf children manifested a basic capacity for the use of logical symbols; however, they were poor on discovery of symbol meaning and required more training than hearing persons before success was achieved. This deficit became notable at the age of 14 and was similar to that observed in so-called "culturally different" hearing persons.

Visual Imagery

Deaf children could mentally anticipate or visualize spatial positions as well as hearing peers. They improved with age as did hearing children – an indication that the use of visual symbols (just as the use of linguistic symbols) is dependent on and expresses the level of intellectual development

Probability Concepts

Deaf children did not differ from hearing children in the basic comprehension of elementary probability concepts. The question of more complex probability notions was left open.

Memory

Deaf children were able to recall meaningful and nonsense words better than hearing controls, sequences of visual symbols as well as hearing children even though they were inferior with digits (Digit Span). This last result can be attributed to a more poorly exercised number fluency.

[1] *References to published articles are contained in: Furth, H. G., Thinking without language: Psychological implications of deafness. New York: Free Press, 1966, and Furth, H. G., Linguistic deficiency and thinking: research with deaf subjects 1964-1969. Psychological Bulletin, 1971.*

Cognitive Style

In the use of expressive symbols deaf adolescents showed a substantially lower degree of agreement than did hearing adolescents – possibly due to less contact with the cultural environment. On other tasks, measuring cognitive control, embedded-figure perception, functional versus abstract grouping, there were no differences.

Communication

Deaf children were substantially poorer than hearing peers in sending a designated message, somewhat less inferior in receiving, even when they were permitted to use gestures and sign language. Communication accuracy improved considerably from 8 to 11 years, but still lagged behind the communication skill of hearing children.

On the basis of these and other results the normal capacity of deaf children as *intellectually intact* can hardly be questioned. If one considers that the linguistic achievement of the deaf children observed is very meager indeed, one cannot but be impressed by this basic attainment of intellectual competence despite severe linguistic deficiency.

The most dramatic deficiency was noted *not* in the area of intelligence, but in effective symbolic interpersonal communication. Quite clearly, young deaf children are not accustomed to communicate with others unless it is a communication in the context of real action when the gesture language might be more an accompaniment than the carrier of the message. Here we are in the area of effective use of symbols for interpersonal communication. In our society hearing children are encouraged to pay increasing attention to specific symbolic-linguistic messages and therefore by age 8 to 11, they can send and receive rather complex messages. For deaf children, such a task is novel and they do poorly not so much because they do not know verbal language or signs but because they are not accustomed to consider a message situation; in other words, they do not take the perspective of the receiver.

Lack of spontaneous use can also be considered causal for deaf adolescents' poorer sensitivity to expressive symbols. And finally, when deaf adolescents appear to be behind hearing youngsters in the manipulations of logical symbols, it would seem reasonable to attribute this also to a long neglect of training and encouragement rather than a direct effect of having deficient linguistic mastery.

Implications for Education and Rehabilitation

For effective habilitation or rehabilitation of a disabling condition there is nothing so important as to point out what a person can do rather than what he cannot do. In other words, what is strong and healthy should be affirmed and emphasized before focusing on specific weaknesses. A failure should be cautiously interpreted as potentially due to a variety of factors (some of which

could possibly be changed) and should not become a stereotype adjective accompanying the disability. As a practical implication for deafness, whatever emphasis is put on teaching language, educators should give the students a chance to use their developing intelligence, to encourage and nurture its spontaneous development. All students in this study showed surprising lacunae in their intellectual functioning; for example, they had difficulties in simple multiplications, they needed ample prodding and examples before grasping instructions and occasionally did not know that there was a problem to be solved.

From a psychological viewpoint it seems especially unfortunate that the intellectual growth of the deaf child is so often placed second to his linguistic achievement. We say this not because we underestimate the importance of language, but here, as probably in education in general, it may be a question of understanding biological priorities. As Piaget points out, in the hearing child the acquisition of linguistic competence is a normal by-product of intellectual growth and language is one of other contemporaneous forms of symbolic behavior in the child. If we must teach language in a formal manner – which in most methods can be a rather boring and intellectually not stimulating topic – the present findings suggest that many more things than we ever thought *can* be communicated with a minimum of words. Unused thinking structures of deaf as well as hearing students are ready to assimilate the intellectual nourishment which the structures require. If motivation is the secret of successful learning the powerful inner dynamics of the developing intellect should not be neglected.

A thinking-oriented rather than a verbal oriented approach during the *early* school years may prove to provide the requisite interest for *later* learning in the verbal medium. To initiate this change would mean considerable re-thinking of the traditional curriculum during the first school years. At the least, it would require that teachers understand that thinking *is* action, overt or covert, and as such is self-motivating. Memorizing words is not thinking and at an early age level is probably not even a prerequisite for most thinking activities. Obviously, if this educational approach is helpful for linguistically or other deprived children, it has potentially favorable implications for all children.

Specifically, in the three areas – communication, logical symbols, expressive symbols – in which substantial differences in favor of hearing children were observed, there is justification to believe that through different training and experiences deaf children's competence could be increased. It simply does not make psychological sense to focus completely on verbal language as the only openly encouraged medium for communication when the children's linguistic skill is obviously inadequate and when other than linguistic means could be employed. Similarly it should not be necessary to wait for linguistic mastery before one exposes deaf children to complex logical operations; our research demonstrates that these can be expressed by means of other than linguistic symbols. Finally, a more conscious effort to let deaf children experience symbolic-expressive qualities in drawing, in art, architecture,

rhythm and movement could easily benefit the total personality of the child and bring him emotionally and intellectually in closer contact with his culture.

THE RELATIONSHIP BETWEEN PERCEIVED EMPATHY, GENUINENESS, AND WARMTH, AND CONDITIONS OF CHARISMA AND EXTERNAL COUNSELING CONDITIONS

Ingwell, R. H. Unpublished doctoral dissertation, University of Missouri, 1970

Background

There has been much recent concern about the factors which bring about positive therapeutic change in the counseling relationship. Truax and Carkhuff have asserted that the counselor's emanations of warmth, empathy, and genuineness are the essential ingredients. They also suggest that client perception of the counselor's warmth, empathy, and genuineness is independent of the counselor's status or charisma, e.g., they cite research which suggests that lay counselors can be as effective or more effective than professional counselors.

On the other hand, Jerome Frank and a body of research from social psychology indicate that a person's ability to influence another is directly related to the influencer's status or charisma.

The influence of the external counseling conditions (the size, opulence, and decor of the counseling room) upon the client's perception of the counselor has not been systematically studied.

Purpose of This Study

The primary purpose of this study was to determine the relationship between charismatic and external counseling condition variables and their effect on client perceptions of a counselor's Truax-Carkhuff core therapeutic conditions. Also studied was the relationship between charismatic and external counseling condition variables and their effects upon client perceptions of a counselor's source credibility.

Method

Forty-four females, serving as subjects, were randomly assigned to one of four experimental treatments:

A. High charisma, high external counseling conditions.
B. High charisma, low external counseling conditions.
C. Low charisma, high external counseling conditions.
D. Low charisma, low external counseling conditions.

The charisma variable was manipulated by informing the subjects that their interviewer was either a professor from the University of Kansas and a member of the staff of the Menninger Clinic, or that he was a graduate student, working

his way through college on the work-study program. In conditions A and C the interviewer was dressed in a suit with a tie and white shirt, in conditions B and D the interviewer was dressed informally in old clothes. The external counseling condition variable was manipulated by having the interviewing take place in either a large, well appointed, neat office or in a much smaller, very messy office.

Each subject was interviewed about her dream behavior for fifteen minutes by the same interviewer, regardless of the experimental treatment. After each interview, subjects were taken to a separate room where they recorded their impressions of the interviewer on the Relationship Questionnaire and the Counselor Rating Scale. The Relationship Questionnaire (Truax and Carkhuff, 1967) is an instrument designed to elicit a client's perceptions of the Truax-Carkhuff central therapeutic conditions. The Counselor Rating Scale (Hartley, 1967) is an instrument designed to obtain client perceptions of a counselor's credibility. The data derived from the Relationship Questionnaire and the Counselor Rating Scale were analyzed in a two by two factorial design.

Results

The subjects perceived the interviewer as being significantly warmer, and more genuine in the low charisma-high external counseling experimental condition. The subjects' perceptions of the interviewer's empathic qualities were not affected by the experimental manipulations. The counselor's credibility was also not affected by varying the charismatic and external counseling condition variables. The external counseling conditions variable generally did not affect the subjects' perceptions of the interviewer's warmth, empathy or genuineness.

Conclusions and Implications

The Truax-Carkhuff view that a counselor's perceived warmth, and genuineness would not be affected by the counselor's status or charisma was not supported by this investigation. The position that a counselor's attributes would be perceived more favorably with increase in status or charisma was also not supported. On the contrary the lower status interviewer was perceived significantly more favorably than the high status interviewer.

The implication would seem to be that we cannot make assumptions about status relationship based on common sense. Nor can we generalize from findings of previous studies to predict how client's perceptions of counselor attributes will be affected when charismatic or external counseling conditions are varied. Summarizing, more effective counseling could possibly result if client populations were carefully matched to counselors. The requisite counselor attributes for each group should be determined by experimental investigation.

A GUTTMAN FACET THEORY ANALYSIS OF TEACHER ATTITUDES TOWARD THE MENTALLY RETARDED IN COLOMBIA, BRITISH HONDURAS, AND THE UNITED STATES

Jordan, J. E. Indian Journal of Mental Retardation, 1970, 3, 1-20.

Gunzburg (1958) states, that mental retardation, unlike physical disability, is to a large extent a social concept, created in part by the Industrial Revolution. Increasing complexity as well as the progress of medical and psychological science have undoubtedly led to increased rates of retardation, both absolute rates because of expanding population and better diagnosis and treatment, and relative rates through identification of those who, while perhaps able to function in a simpler society, are unable to cope with the complex demands of modern society.

Despite the importance of community attitudes, however, very little systematic research has been directed toward uncovering factors which are instrumental in the development of attitudes toward the mentally retarded.

Extensive reviews (Harrelson, 1970; Jordan, 1968; 1970b; 1971b; Morin, 1969) of studies on attitudes toward mental retardation indicated that none of the previous studies employed an attitude scale constructed on the basis of facet theory proposed as by Guttman (1959).

The construction of the *Attitude-Behavior Scale: Mental Retardation* (ABS-MR) was guided by a facet design which makes it possible to construct items by a systematic *a priori* method instead of by the Likert method of "intuition" or by the Thrustone use of "judges." Full details on the scale developments aspects are contained elsewhere (Jordan, 1970b).

Design and Subjects

The present paper focused on teacher attitudes toward mental retardation across national boundaries and includes both comparative and hypothesis testing aspects. It is comparative in that it examines attitudes in different national settings and hypothesis testing in that it specifies relationships between constructs regardless of national setting.

The larger international research project examines specific hypothesis within-and-across national boundaries. The subjects of the present paper were teachers from Colombia (405), British Honduras (523), Kentucky (55), Texas (50), and sophomore level education students at Michigan State University (633).

An analysis of variance design was used to test for differences among the research groups; holding constant the effects of age, sex, and amount of education. This procedure allows us to at least rule out the contribution of these variables and any differences found is therefore between the research groups.

Discussion

Relationships were examined between attitudes toward the mentally retarded and values, knowledge, and the intensity function in five groups of teachers in nations and/or locations of varying socioeconomic, econodemographic, national and cultural development.

The data strongly support the assertion that attitudes have an affective-value-contactual base rather than a cognitive-knowledge one. While the data from the "national indepth" studies (Harrelson, 1970; Jordan, 1970b; Morin, 1969; Vurdelja, 1970) in the larger cross-cultural study indicate that occupational groups like teachers may be more like one another than they are to other groups within their own nation, the data in the present paper indicate that teachers in the five research groups did differ in their attitudes toward the mentally retarded; even when sex, age, and amount of education were held constant.

The Texas teachers were most favorable in their attitudes while the Colombian teachers were most intense. Previous data on Colombia leads one to postulate the intensity finding in Colombia as stylistic for Colombians and provides interesting data for Inkeles (1969) study of national character. It is of further interest that the Colombians also scored higher on both value content and intensity; since the value measure purports to measure man's sense of control over his environment and the Colombians score next highest to the Texans in positive attitudes toward the retarded. Perhaps further research needs to examine the relationship between economic development and psychosocial attitudes. In American folklore the Texan is depicted as grandiose and self agrandizing and in Latin America the Colombian is regarded as *"machismo mas grande"*, assertive, and aggressive. Perhaps those who are self assured have little need to feel threatened of the retarded; thus have more positive attitudes toward them.

The position of the Education 200 group is interesting in the ranking of the groups. These subjects were sophomore education majors. They were younger and had less (or no) teaching experience and thus likely also had less experience with the retarded. They tended to score lowest on the attitude and value measures and at the median on knowledge about mental retardation. This provides further evidence for the lack of a positive relationship between knowledge and attitudes as well as support for the assertion that attitudes have an affective-value-contactual base; i.e., the Education 200 group has less contact with the retarded, thus, less chance for affective interpersonal interaction with them.

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THE ALCOHOLIC PERSONALITY: A RESEARCH IN DIFFERENTIAL PERSONALITY PATTERNS.

Lawlis, G. F. and Rubin, S. E. Discussion Paper, Volume 3, Number 4, 1970, Arkansas Rehabilitation Research and Training Center.

A number of studies have attempted to identify the characteristics of the "alcoholic" personality. Unfortunately differences among the findings of the many studies have left the validity of the term "alcoholic personality" still open to question. The findings of another group of studies suggest that the status of the term "alcoholic personality" is questionable because there is in fact more than one distinct personality type in the alcoholic population. In the present study an attempt was made to determine if there is in fact more than one personality type in the alcoholic population. A group of 100 alcoholics were administered the 16 PF. A cluster analysis of their profiles on the 16 PF yielded three groups. Using the factor scores of the 16 PF a discriminant function was computed to indicate the degree to which the groups could be discriminated from one another on the basis of profile scores. The results of the discriminant function analysis indicated quite strongly that the three groups were identifiable on the basis of the 16 PF. Two replications with 80 and 84 alcoholics respectively yielded similar results. Therefore, the question arose as to whether the three groups in each replication were identical to each other as well as identical to the three groups in the initial sample. This question was investigated in two ways: (1) A correlation was computed between the profiles of each of the groups to determine relationships and (2) The scores of the groups in each study were analyzed as to the significance of their difference from the scores of the groups on the other studies. As a result of the analysis it appeared that there were three different personality types in the alcoholic samples studied. The fact that there are multiple types within the alcoholic population does not mean that these same personality types are not found within the general population. In other words, the personality structures found do not predict alcoholism but the knowledge of such dynamics does give some indication for the need for differential treatments. Therefore, the authors devoted part of this paper to a delineation of a differential treatment program for personality types within the alcoholic population. This treatment program focuses on the value of individual therapy, traditional group therapy, and encounter group work with each of the different personality types at different stages of treatment.

THE TAXONOMY OF THE TREATMENT ENVIRONMENT

LeCompte, W. F. Research and Training Center No. 4, University of Houston.

The author has presented the structure of the treatment environment of a rehabilitation hospital. It is described as a crowded set of locations organized into nested hierarchies of units which he terms (1) behavior settings, (2) genotypes, and (3) querencias.

A behavior setting is described as having one or more patterns of extra-individual behavior (psychological component), surrounded by a supporting physical milieu, with both of these components being necessary parts of the behavior setting identification. An example of a typical hospital behavior setting is a one-man office. It has extra-individual action or behavior patterns, such as evaluation, treatment, and social interaction, each involving the use of typical objects such as a desk, chairs, or telephone, and is surrounded by non-psychological milieu in the form of halls, windows, and doors. Other examples of behavior settings in treatment environments are hospital wards, physical therapy areas, and occupational therapy areas. Within these major areas, many smaller behavior settings can be identified. The Physical Therapy area normally consists largely of one gymnasium-like room with a vast amount of specialized equipment and many different types of treatment occurring simultaneously. Occupational Therapy, in contrast, takes place in a number of smaller inter-connecting rooms, each devoted to a particular type of treatment. Because of this difference, more than twice as many behavior settings are found in OT as in PT. In this behavior setting survey, the total treatment environment within the hospital consisted of 122 equivalent units.

Once the behavior settings have been identified, they can be broken down into "genotypes." A classification of settings on the basis of their performers has been labeled a genotype. This unit of classification by the criterion of performance in the setting permits an investigation of the variety or number of different things that go on in the treatment environment, since different professional groups are internally programmed to enact different performances in the hospital. Thus, physicians are found to exist in a single leadership position in 12 behavior settings, and to share the limelight with secretaries in six other behavior settings. These two genotypes, when compared, show that doctors perform alone in twice as many settings as when they share performances with secretaries. The number of behavior setttings and of genotypes furnish information on "extent" and "variety" within the hospital treatment environment.

Population density of the treatment environment is studied with the use of the *occupancy time index*. Occupancy time is defined as the number of hours spent by all of the inhabitants of a setting during a survey year.

Just as it was possible to classify settings into genotypes, the genotypes are themselves grouped into classes by their leadership patterns. That is, the leader or dominant performer in each genotype is seen as having most deeply imprinted the particular program of activities for that genotype. For example, the genotype "Physician Only" can be seen as equivalent to "Physician and Nurse," since in both cases the physician is the dominant performer or leader. The term "Querencia" is used for this classification or grouping of genotypes. At the level of querencia a comparison was made of the similarities and differences of the behavioral topography of each professional group. It was accomplished in this study by rating each of the 122 behavior settings on the degree to which they gave prominence to 12 different action patterns, such as treatment, evaluation, or recreation. These action pattern ratings were averaged for each genotype and a factor analysis of the mean action pattern ratings for the 52 genotypes was performed.

The author provides tables showing results of this particular environment analysis; however, the major points to emerge from the data presented are:

1. The notion that the rehabilitation process is investigable by ecological methods that are quantitative and precise.

2. That meaningful comparisons can be made, both within parts of the treatment environment and between different environments.

3. That the identification and classification of ecological units is a critical step in the scientific study of any complex, on-going process such as physical rehabilitation.

SELF-CONCEPT AND IDEAL-SELF IN ASSESSING THE REHABILITATION APPLICANT

MacGuffie, R. A., Janzen, F. V., Samuelson, C. O., and McPhee, W. M. Journal of Counseling Psychology, 1969, Vol. 16, No. 2, Part I, 157-161.

The purpose of this study was to determine whether clients of the State Vocational Rehabilitation Office who were later rehabilitated could be distinguished by means of a self-concept and an ideal-self concept scale from applicants who did not return after the first interview. One hundred and fifty-three "investigators" (applicants during a 21 month period who did not return after the initial interview) and 167 "accepted" cases (applicants during the same period who returned for rehabilitation services) comprised the sample for the study.

"Accepted" cases obtained significantly higher scores than "investigators" on the Self-Concept (.05 level) and Ideal-Self-Concept subscales (.01 level) of the Social Vocabulary Index. This finding suggests that applicants who persist in rehabilitation beyond the initial interview hold higher estimates of themselves and aspire to higher goals than do applicants who fail to return after the initial interview.

"Accepted" cases who were later rehabilitated differed significantly (.01 level) from those who were not in respect to their scores on the Self-Concept subscale. Their scores on the Ideal-Self-Concept subscale did not, however, differ significantly. This may suggest that a high ideal-self concept may be related to persistence in the rehabilitation effort but not the actual achievement of the rehabilitation goal; a high self-concept, on the other hand, appears to be a good predictor of clients who will both persist in and become rehabilitated by the services of the State Vocational Rehabilitation Agency.

The administration of these subscales may provide an early identification of potential "dropouts" from the rehabilitation effort. Since nearly fifty percent of vocational rehabilitation applicants do not return for service, the importance of such early detection is easily recognized.

NEED FOR APPROVAL AND COUNSELING OUTCOMES

MacGuffie R. A., Jorgensen, G. Q., and Janzen, F. V. Personnel and Guidance Journal, 1970, 48, 653-656.

The intent of this study was to investigate the relationship between a client's need for approval and the success of vocational counseling. The hypothesis was derived from the work of Riesman and of Fromm, which focuses on the "inner-directed" versus "other-directed" personality and suggests that the person whose behavior is determined by the responses of others is more likely to change in such a manner as to increase his market value. Thus, the "other-directed" client should have a higher likelihood of rehabilitation success.

The investigators administered the Marlowe-Crowne Social Desirability Scale, as a measure of the need for social approval (other-directedness), to 167 applicants at a state rehabilitation agency. Test administration took place immediately after the initial interview. After case closure, each subject was classified as "rehabilitated" (N=88) or "non-rehabilitated" (N=79). The two resulting groups were then compared in terms of the clients' earlier scores on the Marlowe-Crowne Social Desirability Scale. The mean score for the Rehabilitants group was significantly higher ($p < .01$) than that of the Non-Rehabilitants.

The findings are discussed as they relate to apparently opposite findings of research with psychiatric clients. The authors also discuss possible implications for counseling, particularly as regards the use of positive reinforcement with clients who are less responsive to social approval.

REPEATED MEASURES AND THE EVALUATION OF CHANGE IN THE INDIVIDUAL CLIENT DURING COUNSELING

Mitchell, K. R. Journal of Counseling Psychology, 1969 16, (6), 522-527.

A review of treatment research reveals a virtual absence of studies based upon the psychological manipulation of dysfunctions in an individual subject, client or patient. Typically, research concerned with investigating the counseling process has dealt with group-averaged counselor-client interaction, while counseling-outcome research has concentrated on changes in the group as a result of counseling. The major limitation of group-averaged designs lies in their failure to relate treatment effect to the individual client and specific within-client characteristics. The traditional process-outcome distinction has perpetuated the use of pre- and post-measurement designs with a resulting loss of information about the form of the function between these two treatment end-points. Three problems exist with this approach.

1. End-point observations, for the purpose of estimating change in the client state, place severe limitations on reliability of the measurement of change.
2. Random fluctuations in the client's symptomatology can be mistaken for systematic change.
3. Exclusive reliance, upon pre-and post-measurement may lead to findings that are invalid or terminate research prematurely.

The use of repeated observations or measures on the individual client has been advocated as a way of reducing the problem of client-change unreliability. The client becomes in effect, his own control, enabling the measurement of within-client change obtained to be related to his own specific set of aetiological variables and other characteristics of the treatment setting.

To the present time, intra- and extra-session client change has been measured by the personal questionnaire method of M. B. Shapiro. Unlike questionnaires in common use, a different personal questionnaire, is constructed for each client based on problems experienced as unpleasant to the client.

Purpose

The purpose of the present study then was twofold.

1. To investigate whether it would be practicable to apply Shapiro's single-case, repeated measure design in a conventional counseling-setting.

2. To investigate whether individual-centered research could produce outcome results psychologically meaningful to either the practitioner or theorist.

The subject, a 20 year old male anxiety depressive, had been referred for treatment by a local psychiatric institution.

Method

Questionnaire construction. This consisted of five phases.

1. Descriptive listing of client's problems during an initial interview.
2. Reliability check on problem-list via referral source.
3. Construction of an improvement and recovery statement for each problem statement, for example,

I feel very depressed (Problem)
I sometimes feel depressed (Improvement)
On the whole I am not depressed (Recovery)

The degree of unpleasantness for each statement was defined in terms of the Singer-Young Affect Rating Scale.

4. Client calibration on a nine-point scale of each problem, improvement and recovery statements in terms of unpleasantness of felt experience ranging from Very Great Pleasure through to Very Great Displeasure.
5. Preparation of questionnaire in final form. This consisted of cards upon each of which a pair of statements had been typed, one above the other, in balanced order, for example

Card 1. A. On the whole I am not depressed.
B. I sometimes feel depressed.

Card 2. A. On the whole I am not depressed.
C. I feel very depressed.

Card 3. B. I sometimes feel depressed.
C. I feel very depressed.

There were thus three cards for each problem initially reported by the client. The test procedure consisted of showing the cards, one at a time, and having the client report whether the top or bottom statement was nearer to his present state of feeling.

Scoring was based on the four possible logical response patterns. A maximum score of 10 (recovery) was given to the response pattern $A>B$, $A>C$, $B>C$ for each problem, and a minimum of 2.5 for the response pattern of $A<B$, $A<C$, $B<C$ (no change).

Treatment (systematic desensitization, assertive therapy, goal clarification) consisted of two sessions per week for 12 weeks. A questionnaire measure being taken before and after each block of two sessions. Sessions one to four were used as basal rates and planned contrast analysis was carried out on the remaining 20 data points to obtain answers to four specific questions:

1. Did treatment produce any overall beneficial effect?
2. Did treatment sessions produce any immediate beneficial effect?
3. Did treatment sessions produce any delayed effect?
4. Did early treatment sessions produce more improvement than later treatment sessions?

These four questions were an arbitrary selection from the many questions that could have been asked of the data and were intended only as an example of the type of statistical analysis that could be applied and of the practicability of individual-centered, repeated-measure research.

Results

The following answers to the four questions were obtained.

1. Treatment produced a significant decrease in problem unpleasantness.
2. No immediate effect of treatment sessions was apparent.
3. The delayed effect of treatment sessions was that of significant improvement.
4. Early treatment sessions produced significantly more improvement than later treatment sessions.

The results provided a basis for two generalizations; first, that each treatment session initiated a delayed improvement process which lasted for several days; and second, a series of treatment sessions maintained the delayed improvement process, steadily decreasing to the criterion point of recovery.

Additionally, the grasping of single and various combinations of problems provided a holistic view of treatment progress and enabled fluctuations in problem unpleasantness to be traced to ongoing environmental events and factors.

Conclusions

The results indicate that the systematic application of a time-series or repeated measure single-case model to other subjects selected on the basis of homogeneity of client-characteristics provides a method of identifying and evaluating the variables relevant to both process and outcome success criteria for a particular treatment. The findings emphasize that not only is it practicable to apply such a design in a counseling setting, but also that a counseling study on a single client can provide results which are psychologically meaningful.

THE ROLES AND FUNCTIONS OF THE REHABILITATION COUNSELOR

Muthard, J. E. and Salomone, P. E. Rehabilitation Counseling Bulletin, October, 1969, Volume 13, Number 1-SP.

This study of rehabilitation counselor roles and functions undertaken for the American Rehabilitation Counseling Association and the profession, was designed to provide basic information regarding the work of the RC.

Some of the questions studied include:

1. What functions are actually performed by RCs in various settings?

2. What are the perceptions of counselors, supervisors, administrators, counselor educators, and other professional rehabilitation workers of the current role of the RC?

3. What are the perceptions of counselors, supervisors, and administrators of the desirable role and functions of the RC?

4. What are the relations of setting and characteristics of counselors to (a) their actual functions, and (b) their conceptions of the desirable roles and functions of the RC?

5. What conceptions of the *future* roles and functions of the RC are held by leaders in the field of rehabilitation?

6. What are the implications of these data as seen by RCEs and vocational rehabilitation administrators for the preparation of RCs?

Among the developments in the past two decades which suggest the need for further study of the counselor's role are: (1) the substantial increase in the number of individuals served; (2) the widened spectrum of services developed to meet the needs of clients whose rehabilitation problems are seen as more complex and varied than those of earlier rehabilitation clients; (3) the development of new techniques, procedures, and knowledge through an extensive research and demonstration program; and (4) introduction of substantial numbers of university-prepared specialists in rehabilitation counseling both in state and private programs. Findings from this study are expected to provide a firmer basis for coping with critical personnel problems such as counselor selection, training, recruitment, retention, and utilization.

Methodology

The 378 RCs who volunteered to participate in the project were selected from a national roster developed for the study. Counselors were invited to participate to secure adequate representation with respect to type of agency, training level, experience level, and geographic area.

To obtain information about the RC's role and behaviors, a Rehabilitation Counselor Task Inventory was developed based upon a job analysis technique refined by the Personnel Research Laboratory of the United States Air Force at Lackland, Texas. For each of the 119 tasks, the counselor was asked to indicate

if it *was* part of his job, the extent to which the task *should* be a part of his job, how satisfying he found it, with what proportion of clients the task was performed, what preparation he thought was necessary for the task, and who should perform it.

In addition to the TI, the Holland Vocational Preference Inventory, the Minnesota Importance Questionnaire, Modified Patterson Rehabilitation Counselor Response Exercise, a Counselor Preparation Survey, a scale measuring "Attitudes Toward Rehabilitation Counseling as a Profession," the Job Satisfaction Index, and the Inventory of Job Relationships were administered. These measures were used to test a series of specific hypotheses regarding the relationship between counselor characteristics and counselor role behaviors. Counselors completed their inventories in groups of 15 to 30 at meetings held in large cities throughout the country. Data from rehabilitation counselor educators, agency administrators and supervisors, rehabilitation leaders and other professional rehabilitation workers were secured by mailed questionnaires.

Results

Nature of the Rehabilitation Counselor's Job

Factor analyses of the RCs' responses to the TI indicate that the RC's position may be most parsimoniously described by eight major classes of role behaviors. Nearly all tasks had a factor loading of .30 or greater on one of the eight factors when responses to the Importance Scale were studied. The extent to which the factors accounted for the variability in RC job behavior is further shown from the fact that 80 percent of the tasks had factor loadings of more than .40. These findings suggest major work areas such as affective counseling, placement, etc., for which performance measures might be developed. With information regarding the relative importance of the duty factors, the findings also provide support for other implications regarding RC preparation for placement and psychological testing.

The tasks and duties to which a high degree of importance are attached by RCs fall in the following areas: placement and related activities; affective counseling; vocational counseling; and a combination of supervising, teaching, and group procedures tasks. Other less important factors are test administration, test interpretation, medical referral, and eligibility and case finding.

The way RC tasks clustered with respect to task importance, task desirability, and task satisfaction gives further credence to the possibility that, in the future, separate work roles might be established for coordinating tasks and functions and for counseling tasks and functions. A realignment of current counselor duties along these lines might enable agencies to utilize counselors differentially so that those with particular talents could make optimum use of them. That is, counselors with personality characteristics, preparation, skills, and interest in counseling tasks and functions might reasonably be asked to focus upon these areas. Individuals with background and interests better suited to the

coordination role might be assigned that set of duties. Such a division would also change the manpower requirements for the rapidly expanding state-federal and private rehabilitation agency programs.

Coordinating roles would be especially suitable for many individuals switching to rehabilitation from other careers, e.g., second careerists such as retired military personnel. As experience in some agencies has already demonstrated, some tasks and duties in this general area can also be performed by "new careerists," also known as indigenous workers (Riessman, 1968). Such differentiation of function would better enable agencies sorely pressed to provide and secure sufficient manpower to staff the new programs of service from a broader range of potential personnel. Within the coordinating and case management areas there are clusters of duties which might be performed by individuals without collegiate backgrounds and certainly less than a master's degree in rehabilitation counseling. Such a division of labor also suggests the type of rehabilitation work which might be effectively carried on by individuals *who lack the skill and talent to perform the counseling function. The use of* support personnel raises the prospect of better utilization of the available talent for providing counseling services.

Rehabilitation Counselor Use of Time

Counseling and guidance activities are the predominant areas in which the RC spends his time, but the data clearly show that he spends about two-thirds of his time performing other duties. That the combination of clerical work, recording, and reporting accounts for about 25 percent of the RC's time suggests that counselor skills may often be underutilized. Not only it is possible that additional clerical personnel would relieve the counselors of some tasks, but it is also possible that systematic application of caseload management procedures such as work simplication and operations research procedures may enable counselors to spend more time doing what must be done by the counselor.

Although placement is regarded as a relatively important duty, the summary data on Counselor Activity shows that it generally commands a small amount of RC time. Since counselors and administrators hold placement as a key goal for existing rehabilitation agencies, it is desirable to consider new ways to meet this goal. Differential involvement of RCs or arranging for new types of personnel to perform the placement duty is suggested by the study's findings. Also, if the placement activity of counselors can be shifted from finding jobs for clients to teaching clients how to find their own jobs, the counselor or support person might work most effectively with groups of clients.

Counselor Placement

Counselors should take into account their preferences and competencies in the basic duties of a counselor when choosing a work setting. They should then affiliate with that rehabilitation setting which seems most compatible. Rehabilitation counselors and graduates from programs in this field will find

significantly different work patterns among rehabilitation agencies, particularly in the three major types studied. Although it is not known whether more selective counselor placement will lead to greater effectiveness, the study suggests that such matching may be associated with increased satisfaction.

As a specific procedure for implementing this suggestion, the Rehabilitation Counselor Task Inventory could be used by agencies and counselor job applicants, especially recent graduates of RCE programs, to systematically explore the extent to which the agencies' work pattern is compatible with the interest, competencies, and expectations of the applicant. If any agency had a basic TI profile for a particular type of counseling position or had several positions which varied in some way, the personnel director of the agency and the applicant could examine the nature of the fit between what the applicant is "suited for" and the available opportunities.

Counselor Preparation

University Programs – A generic university curriculum for RCs rather than a specialist program is supported by the similarity in the types of duty factors emerging from the studies of counselors from three major settings. The differences among settings in the relative emphasis given specific tasks and duties could be accommodated by specialized experiences in clinical practice along with some elective course work.

Evaluation of counselor performance by either objective or subjective measures should include indices covering the duties and tasks found to be of major importance in the study. Thus, such duties as affective counseling, placement, vocational counseling, group procedures, counseling-teaching, and medical consultation should have greater emphasis than test administration and interpretation, medical referral, and eligibility-case finding.

Counseling tasks and activities were found to be of predominant importance to the counselor's job, but it was also shown that he presently performs a wide range of other tasks in order to achieve the goals of his agency and to satisfy the needs of his clients. University programs for RC preparation should develop competencies associated with the major duties if the duty or task is such that it requires the integration of basic knowledges and skills provided by universities. Universities cannot, of course, be expected to provide vestibule training for any particular program of rehabilitation services. However, as the study shows, the professional aspects of the counselor's job go beyond the counseling function.

The differing role expectations and perceptions for the counselor's present job found among RCEs, administrators, supervisors, counselors, and leaders has significance for counselor educational programming. It is possible to view the differences between RCEs and agency head supervisors with considerable alarm and admonish the educators to realign their curricula with the real world. One might easily say that the educators need to adjust their expectations and their programs so as to provide optimal preparation for agency employment. Changes

in this direction might indeed ameliorate some of the role strain experiences by counselors, especially the recently trained counselors.

A more temperate reaction might be that curricula for RCs probably need to change in some ways, but the agencies' conceptions of how RCs can be best used may also need modification. Within the general educational goals of the university there would seem to be latitude for enhancing the background of knowledge and competencies in such areas as placement and vocational counseling.

There is also the difference in point of view reflected by the phrases, "training for the job as it exists" as opposed to "preparing the rehabilitation counseling student for a profession." Persons with the latter view believe the university's job is to prepare individuals to enter an evolving profession with basic skills and the knowledges which will enable them to cope with a wide range of problems and with the rapidly changing demands being placed upon them and their agency. The similarity between the degree of change in the counselor's job which RCEs think desirable and the amount of change which leaders anticipate for 1980 lends some credence to the "preparation for the future" argument of RCEs.

The substantial importance attached to rehabilitation planning and job placement duties by counselors in all settings suggests that relevant skills and knowledges of this type must be developed during some phase of the counselor's student career. To the extent that aspects of vocational and personnel psychology such as theories of vocational choice and research on work adjustment provide an academic base for effective work in these duties, such study would seem justified as part of the RC's M.A. program. Perhaps one approach to meeting this need would be to have a vocational psychology course which incorporated occupational information with job placement and vocational planning principles and knowledge. Specific provision for helping the student to understand relationships between this academic area and his clinical practice would, of course, also be desirable.

For the RC in the M.A. program, there seems to be no justification for including more than one or two courses concerned with psychological testing. This caution would particularly apply with respect to technique courses in testing such as individual mental testing. The relatively limited importance attached to test administration further suggests a new focus for the counselor's education in testing. Courses oriented toward the understanding and use of tests in vocational counseling rather than courses in clinical testing are the directions which the current practice of RCs suggests.

Administrators and Supervisors — Although administrators and supervisors were expected to value counselor preparation in accord with their own education and experience, these factors were not found to be related to four major skills and abilities factors. The supervisors and administrators did tend to associate the need for certain types of training with the degree to which they thought duties such as affective counseling, placement, and referral were desirable counselor duties.

Educators – Comparisons between educators' estimates of their provisions for the development of task proficiency and their judgments of the desirability of RC tasks generally indicate that they think they provide for the development of task proficiencies at a level higher than the desirable importance they attach to RCs' tasks. A correlational analysis, however, showed that the RCEs are definitely congruent in their judgments of what the counselor should do and what their programs provide for in skill development. In a similar fashion, the RC desirability scores were found to be significantly correlated with the RCEs' estimates of task proficiency provided.

Although RCEs are known to differ in their counseling orientations, it does not appear that this results in significant differences in the extent to which they provide for the development of RC task proficiency in their M.A. programs. Perhaps even more surprising was the fact that in the RCE group, differences on the counseling orientation measure (MPRCR exercise) were not associated with differences in the relative desirability of a large sample of counselor tasks.

Agency-Educator Relationships

The discrepancy between the educator's perception of what the counselor does and should do and what the RC reports he does and thinks he should do reflects a gap of understanding and knowledge. This could be detrimental to agency-university collaboration and may result in the reflection of attitudes which prejudice RC students against positions in the state-federal program. To say that improved understanding between agency and university is needed says nothing new, but the need for continued contact between RCEs and agency heads merits mention even if somewhat redundant. It is through such experiences, associations, and discussions that agency leadership and counselors can see new opportunities for the improvement of client service through the suggestions of researchers and teachers. Through such discussions, educators can better understand the present and future needs of rehabilitation agencies and more intelligently guide their efforts to prepare students to meet the client's need for professional assistance. Such discussions may also lead toward increased acceptance, by both agency staff and educators, of the changing needs and problems of clients as they are perceived by both groups. This fresh look may encourage and enable agencies and their representatives to provide different levels of personnel to satisfy the needs of different kinds of clients.

Role Strain Among Counselors

Today's RC appears to experience a substantial amount of role strain. His supervisors, administrators, and other professional rehabilitation workers all hold greater expectations for him in the performance of most tasks and duties. There is almost universal agreement that the counselor should do more vocational rehabilitation planning and placement. Many groups also think he should increase his efforts in group procedures or the administration of special tests, while agency heads would place more emphasis upon counselors cooperating

with other rehabilitation personnel, and case reporting.

Counselors and their employers may move in a number of ways to ameliorate the degree to which role strain is experienced. One of these would be to enhance the mutual understandings between the counselors and their co-workers. This may be accomplished among agency staff through discussions directed toward clarification of counselor role, but it is more likely that the RC himself needs to take the lead in clarifying his role for his collaborators in the community.

The presence of role conflict or strain may have beneficial effects on the development of the field of rehabilitation counseling. As one participant in the research utilization conference held by the project suggested, "The dynamics of professional growth and improved services could not exist for long without the tensions and confrontations that grow out of differential expectations concerning rehabilitation counselor role, function, and preparation."

Counselor Role and Counselor Characteristics

The lack of relationship between the extent to which RCs find satisfaction in counseling or placement duties and various measures of counselor personality suggest that some counselor stereotypes need to be reconsidered. The belief that the enterprising, energetic, realistic person would be well suited to placement would be one of these as well as the notion that a social service orientation or need for responsibility and autonomy might be associated with greater satisfaction with the counseling activities.

Personality characteristics of counselors were expected to be associated with the relative emphasis counselors placed upon various duties and also were expected to show that personality factors would be associated with what the counselor thought should be important on his job. Again, the negative results of this analysis provide no support for the view that self concept and personality are expressed in the manner in which the RC views his job. However, these findings do not rule out the possibility that personality factors may be related to other criteria variables such as quality of the client-counselor working relationship or the number of rehabilitation closures.

Salomone's (1968) findings with a sample of male DVR counselors suggest that within the total group there may be smaller groups defined by type of agency, sex, training, experience, etc., which do have identifiable personality attributes. The significant relationships he found between selected needs and work patterns suggest the need for further analysis and study of this question among RCs. For example, it is of some interest to know whether the master's degree counselors working in facilities are different in their orientations and needs from those working in state general agencies.

There appears to be a notable association between the extent to which RCs think training is required for such major duties as placement, affective counseling, group procedures, and eligibility-casefinding and the educational level of the counselor. That this relationship is most marked between educational level and affective counseling might readily be anticipated in terms

of cognitive dissonance theory. That is, having had graduate preparation, the counselor places higher value on the pertinence of such preparation for a high status duty and thus avoids dissonance between his career choice and the value of activities central to his work. Similarly, the person who qualified for rehabilitation counseling through a graduate program may also generalize the value of graduate study to other activities which are significant elements of his job, but are not prestigious or directly linked to his schooling.

Facilities counselors, who tend to have more graduate preparation, also regard graduate preparation as more highly necessary for major aspects of the counselor's job than do state agency counselors. However, there appears to be substantial agreement among counselors from all three types of agencies that extensive educational preparation is desirable for affective counseling, group procedures, and test interpretation.

Support Personnel for Vocational Rehabilitation

The lack of any substantial consensus among RCs regarding which of present RC tasks counselor aides (CAs) might perform suggests that RCs do not expect aides to take over many RC duties. Rather, the aides are expected to be adjunctive workers who will assist with certain types of ancillary tasks – possibly those which are necessary for effective case management, but which do not require extended training or experience. This result also suggests that the CA can be expected to be a threat to the RC and should be carefully introduced into rehabilitation settings as a person who complements the counselor's work rather than as a trainee for the RC position.

The present RCs see counselor aides as being suitable for performing only a limited number of RC tasks. These opinions may be restricted to aides who would have less than collegiate preparation rather than to persons with two or four years of college background. The possibility of rehabilitation specialists with college backgrounds working side by side with RCs may be an approach to meeting the demand for more and broader services to more clients. Such specialists may not be prepared to incorporate specialized knowledge regarding vocational adjustment or personal adjustment into the counseling process, but they would have or could develop basic approaches for helping clients mobilize their personal resources and make effective use of the available resources of the agency and the community. Specialists at this level would also be compatible with the staff patterns and employment practices which the agencies now follow or have used in the past.

The opinions held by RCs regarding tasks which should be performed by them or by other professional workers may certainly be expected to influence their acceptance of other rehabilitation workers and CAs as collaborators in the vocational rehabilitation process. Counselors definitely think tasks involving client eligibility, vocational counseling, rehabilitation planning, and referral to other agencies and resources should be reserved for RCs. Counselors, especially those with graduate education, think graduate preparation is necessary for counseling related activities but not especially necessary for the other tasks and

duties. It appears that counselor acceptance of new specialists or CAs will require a change in the counselor's view of what is proper for various rehabilitation workers to do. The counselor is ready to accept the contribution of specialists in such areas as psychological testing and placement, but he does not regard the CA as an individual who would be able to assume many of his tasks and responsibilities. Incorporating support personnel, CAs, and "new careerists" into the vocational rehabilitation program will probably meet the least resistance if these workers are assigned relatively new roles or duties which the counselor has generally neglected in the past or if the new person is provided with a specialist role such as that of placement specialist.

Some of the aspirations of this study have been fulfilled and others have not. It provides further knowledge about the structure of the RC's job. Information about the relative importance of the RC's duties and tasks provides some guidance to those concerned with counselor preparation and utilization. It presents some encouraging findings such as the general congruence between what RCEs think should be changed in the counselor's job and what rehabilitation leaders expect to change by 1980. It includes discouraging findings such as the lack of relationships between RC personal traits and the emphases they place upon their duties. The study also introduces another research instrument to the rehabilitation counseling community. Finally, the problems, methods, results, and implications of this study may serve to stimulate other investigators to further study the changing roles and functions of the rehabilitation counselor.

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THE EFFECTS OF DISABILITY ATTRIBUTION AND PERSONALITY TYPE ON PERSON PERCEPTION[1]

Parker, R. M.[2] *Columbia, Missouri: University of Missouri-Columbia, 1970.*

Identifying a person as disabled may have telling consequences. A number of studies employing disability as an independent variable have demonstrated that subjects interacting with purportedly disabled individuals exhibited behavior that was divergent from the behavior of subjects interacting with nondisabled individuals. The purpose of the present study was to assess the effects of disability attribution and personality type on person perception. The following null hypotheses were tested:

1. Disability, attribution will not affect person perception.
2. Personality type will not affect person perception.
3. Disability attirubtion and personality type will not interact to affect person perception.

In addition, a question was asked which implied an exploratory, factor analytic approach: What is the nature of the perception of disabled persons?

The subjects were 155 University of Missouri students, including 72 educational psychology volunteers and 83 sociology students. After reading descriptions of the interviewees, each subject viewed a video-taped interview of a high A (Anxiety) scale scoring male and a low A scale scoring male. Descriptions read by subjects in the treatment conditions identified both interviewees as possessing a nonvisible disability (e.g., mental illness, epilepsy). Descriptions prepared for control subjects contained no disability information. Subjects rated both interviewees on 21 rating scales, after which the Marlowe-Crowne Social Desirability Scale was administered. These 22 dependent variables were factor analyzed for the 83 sociology subjects. Four factors were extracted and labelled "Personal Dependability," "Social Sensitivity and Benevolence," "Social Gregariousness and Congeniality" and "Anxiety." The four factors closely resembled those found in previous studies. The social desirability variable loadings on the four factors were negligible.

The factorial invariance of the obtained factor structure was also assessed. The educational psychology data was factor analyzed and the resulting factor matrix was compared to that previously obtained from the sociology data. A median cosine of .935 between the corresponding vectors of the two matrices

[1]This study is an unpublished doctoral dissertation supervised by Richard W. Thoreson, University of Missouri.

[2]The author is currently Assistant Director of the Rehabilitation Counselor Education Program, Department of Special Education, at The University of Texas at Austin.

demonstrated that the factor structure of person perception is relatively invariant from one sample to another. In the context of prior research these findings supported the notion of the existence of a general implicit personality theory and implied that the modes of perceiving nonvisibly disabled males and nondisabled persons are essentially the same.

Factor scoring formulae were developed from the sociology matrix and applied to the educational psychology data, resulting in four factor scores for each educational psychology subject. To test the previously stated hypotheses, a repeated measures analysis of variance was computed for each of the four sets of factor scores for the educational psychology subjects.

With regard to the effects of personality attribution on person perception, one statistically significant finding (alpha = .05) emerged. When labelled mentally ill, the interviewees were perceived as lower on Factor I, Personal Dependability, than those labelled epileptic or those in the control condition (not labelled). On the personality type dimension the high A interviewee was perceived as lower on Factors I (Personal Dependability), II (Social Sensitivity and Benevolence), and III (Social Gregariousness and Congeniality). Interestingly, the subjects perceived no difference between the high and low A interviewee on the "Anxiety" factor. Finally, the disability attribution and personality type dimensions did not interact, indicating that they are independent of one another.

SOCIAL SECURITY SURVEY OF DISABLED ADULTS

Haber, L. D., Brehm, H. P., Cinsky, M. E., Cormier, R. H., Frohlich, P., Katzen, K. A., Stanley, G. L., Swisher, I. G., and Treitel, R. Baltimore, Maryland, Social Security Administration Office of Research and Statistics.

In 1966-68 the U. S. Social Security Administration undertook a major national study of disability, a household survey of noninstitutionalized adults and an institutional survey. Fifteen research reports have resulted from these data and are summarized here.

The field work and data collection and processing were handled by the Bureau of the Census, using both personal interview and mail questionnaire techniques. The noninstitutionalized population includes all disabled adults aged 18-64. The institutionalized sample included persons aged 65 and over, as well.

The major objectives of the study of the noninstitutionalized were:

to describe the prevalence, nature and extent of work limiting disability;
to examine the relationship of antecedent and onset factors to the severity of the disability and the subsequent work experience;
to examine the effect of the severity of the disability on income and income sources, occupation and work adjustments, medical care, rehabilitation, and family relationships and activities;
to examine the relationship of the public income-maintenance programs in terms of the populations receiving benefits under the provisions of these programs.

The institutional survey focused on treatment of the patient, family contacts and the activities of the patient's financial administrator.

Disability was defined as a limitation in the kind or amount of work (or housework) resulting from a chronic health condition lasting three months or longer. The three categories of disability were:

Severely disabled – unable to work altogether or unable to work regularly.

Occupationally disabled – able to work regularly but unable to do the same work as before the onset of disability or unable to work full time.

Secondary work limitations – able to work full time and at the same work but with limitations in kind or amount of work.

The survey of noninstitutionalized adults was based on a multiframe area probability sample design, selected to be representative of the noninstitutionalized civilian population aged 18-64 of the United States. The field work was conducted in two stages: (1) screening to determine persons with health-related limitations in their ability to work, and (2) collection of information on the nature, severity, onset and duration of the disability, work history, medical care, rehabilitation services, income, family activities, and demographic characteristics. Approximately 30,000 households were selected from seven population bases to receive mail screening questionnaires. The completed sample included 8,300 persons, who were personally interviewed.

The survey of the institutionalized adults was based on a two-frame sample selected to represent all persons 18 and over in medical institutions with an average stay of over 30 days, including long-term wards in short-stay hospitals, psychiatric and chronic disease hospitals, and schools and homes for the mentally and physically handicapped. Persons in nursing homes, military hospitals, and corrective institutions were not included. Six thousand patients made up the sample. Data were obtained from state members, institutional records, and relatives of the subjects.

Major findings have included the following:

(1) One-sixth of noninstitutionalized American adults are limited in their ability to work, because of a chronic health condition. More than 6 million are severely disabled (unable to work altogether or to work regularly). Prevalence and severity of disability increase steeply with age. Of adults aged 55-64, one-third are disabled, and one-sixth are severely disabled.

(2) About one-fourth of all persons (one-half of the men) not in the labor force and one-fourth of the unemployed were disabled.

(3) One-half of the disabled adults were employed, but only one-fourth of the severely disabled men were employed at the time of the survey. Most men worked part-time. One-third of the men work on farms and another third work at unskilled or semiskilled jobs.

(4) Less than one-third of the disabled receive public support. Among the severely disabled, one-half receive benefits. Three-fifths of the men and two-fifths of the women receive income from public maintenance programs.

(5) Musculoskeletel and circulatory disorders account for over half of disabling conditions.

(6) The functional limitation index, based on activity restrictions shows a close relationship between work-related severity of disability and functional limitations. Capacities for adaptation to functional limitations were related to such attributes as age, sex, and occupational experience.

(7) One in eight disabled persons has received rehabilitation services, and one in seven is interested in receiving services in the future. Of those who have not received rehabilitation help, less than one in twenty tried to get it.

(8) Disabled adults use hospit[illegible] more and have less health insurance than the average adult. Per capita health care expenditures are twice as high for the disabled as for the average American.

(9) Family income is considerably less for the disabled than for the average United States family. Forty oercent of the severely disabled are below the poverty level.

An interesting finding involves the low proportion of disabled persons receiving or desiring rehabilitation services. Only 12 percent had received services and 95 percent of the disabled who had not received services had never applied for them. Most disabled adults did not perceive vocational rehabilitation as a service that would help, or that they needed. Eligibility, health reasons, and lack of information about services were also mentioned as deterrent to application for services.

Another interesting finding was the higher prevalence of severe disability among women. This may be a product of difference disability perception, work requirements or motiviation, work availability, or simply health (physiology).

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CAREER CONTINGENCIES OF THE REHABILITATION COUNSELOR

Sussman, M. B. and Haug, M. R. Rehabilitation Services Administration, Project No. RD-1726-P-68-C3, Case Western Reserve University.

In 1964 a longitudinal study was started on the career contingencies of the rehabilitation counselor (including working counselors, counseling students, and supervisors). The focus was on analyzing efforts to professionalize this occupation. Data were collected at set intervals through 1969 and will continue on a limited basis at least through 1973.

The major findings reported to date are: 1) rehabilitation counselors use more than one professional organization. The National Rehabilitation Counseling Association serves the need of most counselors who work in state vocational rehabilitation settings, the American Psychological Association attracts Veteran's Administration counselors, while the needs of private agency counselors are served by both, and also by the American Rehabilitation Counseling Association. The great variation in work settings, each with different educational requirements and counseling emphasis, may require several organizations in order to more adequately represent the needs of rehabilitation counselors. 2) Rehabilitation counseling graduate students tend to be older, come from the lower two socio-economic classes, and have more intimate experience than the average graduate with disability, either being disabled themselves or having someone disabled within the immediate family. They tend to have a limited role definition of rehabilitation counseling and to idealize the role they will play, i.e., believing they will not be overburdened with paper work and will do much face-to-face counseling. 3) Rehabilitation counselors in the Veteran's Administration, the Division of Vocational Rehabilitation, and private agencies differ in their work roles, attitudes, and demographic characteristics. These differences are due, in part, to the divergent development of the settings and hence, their hiring practices. As each setting continues to develop on its own, the role of the rehabilitation counselor will become more differentiated. 4) The rehabilitation counseling field is divided in its view as to whether it is a unique and separate field of study or whether it is a sub-specialty of counseling. Neither the students, nor the educators and supervisors have come to a common viewpoint. If the professionalization process is to continue, some common agreement as to the identity of rehabilitation counseling must occur, but it does not appear that recent rehabilitation counselor graduates will bring about this unity because they are as divided on the subject as are the present leaders in the field. 5) Second careerists, i.e., those people who shift occupational fields after having had a stable work record in another field, are a source of recruitment of rehabilitation counselors. These people present low-risks when they have come

from ancillary fields such as social work, teaching and school counseling. In addition to second careerists, there are other groups which are a potential source of recruitment: housewives with volunteer experience, and groups which have been previously discriminated against, e.g., Blacks and those with low educational achievement levels. 6) There is a high rate of defection from the rehabilitation counseling field after training which is partially explained by the fact that the field has not been able to attain its objectives. Although a complete overhaul of the system is needed, some intermediate steps must be taken to combat these defections. Raising the self-esteem of rehabilitation counseling as a role apart from psychology and increasing supportive activities during training to increase commitment might help in combating losses from the ranks. We anticipate that the tightening of the economy will have a stabilizing effect upon the rehabilitation system with fewer losses of graduates and a more steady progression of counselors along the career ladder.

ENVIRONMENT AS A NETWORK OF JUDGMENTS REGARDING STAFF ROLES

Vineberg, S.E. Paper at 47th Annual Session of American Congress of Rehabilitation Medicine, New York City, August, 1970.

This is a description of methods and data from a study of role conceptions and agreements in a rehabilitation hospital. The data were taken from 133 individual interviews. The respondents were the total available work-force engaged in patient services during the 3 weeks of interviews plus 15 spinal cord patients who were in comprehensive rehabilitation, and 11 former patients.

Respondents were asked, "What do you see as the main activities of the (target person – physician, orderly, psychologist, etc.)?" and, "Why does he or she do this?" The questions were repeated 12 times to each respondent, once for each of the 12 target groups: physician, physical therapist, occupational therapist, social worker, psychologist, vocational counselor, nurse, aides and orderlies, recreational therapist, orthotist, dietician, and patients.

These data are tabled in several ways and grouped by respondent, by target person, and/or by categories of content. The largest number of discrete responses (827) was made about aides and orderlies, the smallest number (355) about the orthotist. All together 6,872 responses were distributed into 330 categories. Each respondent averaged 52 statements, or 4.83 statements per respondent per target person.

Agreement among respondents was analyzed in various ways. There was high agreement between patients and ex-patients, patients and orderlies, nurses and orderlies, and nurses and physical therapists.

The hospital as a whole agreed most with the psychologist about his own role conception. The highest agreements on role conceptions were with the physical therapist, the physician, the occupational therapist, the nurse, the vocational counselor, and aides and orderlies. These groups are perceived as coming the closest to doing what they say they do. Social workers have the highest average agreement with all other groups about what they say they do. The social worker tends to describe other workers like these other workers describe themselves. The vocational counselor and physician rank next in this characteristic. Aides and orderlies and patients agree least with the self-descriptions of other groups. Patients after they leave the hospital tend to agree more closely with other groups in this respect.

Responsiveness to all target groups increases with increased exposure time. The longer the respondent has been in the hospital, the more likely he is to describe the role of the target person. However, some target persons, such as the

vocational counselor, remain essentially unknown. For the most part the longer a respondent is in the hospital the more his description is likely to agree with that of the target group about himself.

Ex-patients agree less than patients do with physicians, but considerably more with social workers and vocational counselors. The ex-patient describes the role of the dietician, the psychologist, the vocational counselor and aides and orderlies most nearly like these target groups describe themselves.

An interesting analysis is made of how patients see various specialists in comparison with how these specialists see themselves. For example, occupational therapists see themselves as training and developing muscles, fitting supports and promoting activities of daily living. Patients agree on the latter, but see OT's as primarily providers of arts and crafts, recreation and diversions. Another interesting comparison is between the perceptions of two patient groups: paraplegics and quadaplegics. In general the latter agree with the OT's more than the former about the role of the OT's.

The Hospital Director sees some service roles more broadly than do service chiefs. The difference is a function of conceptual levels, one presenting long-range goals and the other short-range goals. Sometimes, also, it consists of a difference in emphasis or stress on different aspects of related goals.

The purpose of the study was to document some implied aspects of the network of judgments and perceptions of hospital roles, to monitor changes in these over time, and to provide data which hospital personnel may use for their own evaluative and educational purposes. This paper gives examples rather than the complete picture. The author found strong predictable regularities across various levels.

THE INTERFACE OF THE HOSPITAL ENVIRONMENT AND PATIENT BEHAVIOR

Willems, E. P. Houston, Texas: University of Houston, 1970.

This study investigated the patient behavior of 12 hospitalized, spinal-cord lesion patients. The sample was heterogeneous as to sex, age, race, and stage of treatment or length of hospitalization. A relatively unique method was used. A group of observers, equipped with tape recorders, and operating on two-hour shifts, recorded the behavior of twelve patients, eighteen hours a day, for twelve days. These observations constituted the data for the study.

Molar bits of behavior (n=1815) referred to as chunks, were analyzed to: (a) provide a descriptive label for the principal activity; (b) determine the length of time of the activity; and (c) ascertain who instigated the activity, who was directly involved, the degree of involvement of the patient, and the number of other persons in the immediate situation but not directly involved.

There were 122 behavior settings identified in the hospital but 90 per cent of the patients' behaviors occurred in only four of the settings – the wards, physical therapy, hallways, and occupational therapy. The longest chunks of time were spent in recreational therapy and the cafeteria while the shortest chunks were generated in the hallways. Most of the time in the ward was spent in idleness, sleeping, nursing care and hygiene, conversing, passive recreation, and eating.

Although the cafeteria setting yielded the fewest kinds of behavior, it was the setting in which the patient was most active. The ward setting provided the greatest behavioral diversity, however, there was more passivity and docility on the part of the patient. Recreational therapy provided patient involvement but little in the way of patient instigation or initiative.

The total chunks were divided among the ten following activities: conversing, 32.1%; idle, 17.2%; nursing care and hygiene, 16.1%; transporting, 7.9%; exercise and performance training, 5.8%; transferring, 5.2%; passive recreational, 3.3%; eating scheduled meal, 2.8%; active recreational, 2.0%; sleeping, 1.7%; other, 6.1%. Conversational behaviors occurred across hospital settings while activities such as sleeping, nursing care, and hygiene were more specific as to location, i.e., occuring only on the wards.

Conversational activities were typified by a high rate of patient involvement but a low rate of instigation. Nursing care involved docility and low initiative on the part of the patient. Formal exercise and functional training involved a moderate rate of active involvement by the patient but also a low rate of patient instigation.

Relatively few groups of persons mediate the major burden of involvement with the patients, the overwhelming extent being carried out by aides and orderlies. The second most important group, in this respect, is other patients. If

we accept the premise that rehabilitation is in large part a function of time spent with persons, perhaps more concern should be accorded to these two groups.

If patient independence is accepted as one of the major goals of rehabilitation, it is of interest to note that the cafeteria and hallways created the most independence while OT, PT, and RT provided for the least amounts of patient independence. The greatest amounts of patient independence were involved in passive recreation, eating, and transporting. These activities are usually considered to be accompaniments of rehabilitation while those considered to be at the heart of comprehensive rehabilitation – exercise, functional training, nursing care, and hygiene were the activities that produced the lowest rates of independence.

Patient motivation, which is considered by virtually everyone concerned with rehabilitation to be a major variable, was also studied. It was concluded that the closer a setting or activity comes to a professionally oriented definition of formal comprehensive rehabilitation, the more we initiate the activities and do them for the patient or with the patient and the more dependent, docile, and passive the patient must become.

THE WOOD COUNTY PROJECT
AN EXPANDED PROGRAM OF VOCATIONAL REHABILITATION

Wright, G. N., Reagles, K. W. and Butler, A. J. Research and Demonstration Grant No. RD-1629, Rehabilitation Research Institute, University of Wisconsin, Madison, Wisconsin, September 1969.

Introduction

The purpose of the Project was to initiate a model community rehabilitation program involving five years of expanded rehabilitation resources, i.e., increased case service budget and expanded eligibility criteria. The main objective was to assess the potential benefits of vertical and horizontal caseload expansion on rehabilitation clients, intra-agency processes, and the local community. Wood County, Wisconsin, was selected as the area for expansion; the principal control area was Eau Claire County, similar to Wood County demographically and geographically.

Methodology

The experimental agency was given sufficient staff and funds to expand *vertically* to serve all medically disabled persons eligible under existing criteria, and *horizontally* to serve the culturally disadvantaged. Sources of data were: (a) published research instruments, (b) unpublished instruments developed by UW-RRRI staff, (c) quasi-objective community measurements, and (d) Wisconsin DVR client records. Five client groups were compared: for Wood County, physically, mentally, and culturally handicapped; for Eau Claire County, physically and mentally handicapped. The client characteristics were organized in three sets of variables: demographic, vocational, ability.

Results

Impact on the Clients

Scales were developed to assess caseload feasibility, rehabilitation gain, and client satisfaction. The scales were found to be reliable and valid instruments with which to measure the impact. Rehabilitation services can be extended vertically and horizontally without reducing caseload feasibility or client satisfaction. The culturally disadvantaged were more feasible for services and scored higher on the Rehabilitation Gain Scale than did the medically handicapped.

Impact on the Agency

The experimental agency did not lose effectiveness in expanding to serve a much larger client group, including more of the medically disabled as well as the culturally handicapped. More intensive services were provided in less time and

there was no increase in cost per client. This was accomplished without introducing new methods or especially prepared personnel.

Impact on the Community

The benefit-cost analysis showed that all groups of clients obtained far greater benefits in increased earnings than the cost of their rehabilitation; the highest benefits per dollar invested – 70 to 1 – were for the culturally disadvantaged. For this group, an investment in rehabilitation services costing $150,000 in public funds resulted in projected increased lifetime earnings totaling $10,000,000. In addition, public assistance expenses were reduced by more than 50 percent in the experimental county. The community involvement study indicated that people responded positively to the expanded agency. This was demonstrated in terms of public awareness of needs and willingness to increase financial support of rehabilitation facilities.

Discussion and Implications

The expanded agency, given sufficient staff and funds, was able to serve the culturally disadvantaged at least as successfully as traditional (medical) clients; thus, the value of advancement in programming for the handicapped is illuminated. Rehabilitation services for the culturally handicapped can assist these clients to become a part of the mainstream of the economy and, thus, help reduce national poverty.

Summary

The underlying thesis of the Project – established (traditional) techniques of state rehabilitation agencies can be effectively applied to a much broader range of unemployed and underemployed people – was found valid.